Northeast Diesel Collaborative

REDUCING DIESEL EMISSIONS, PROMOTING PUBLIC HEALTH

2015 NEDC Breathe Easy Leadership Award
Nomination Form

Part 1: ***Contact Information***

Organization or Individual(s) Being Nominated: Massachusetts Port Authority Conley Terminal

Title: _____

Address: 1 Harborside Drive, Suite 200S, East Boston, MA 02128

Phone: 6179464432

Email: cmorris@massport.com

Individual Providing Nomination: Christopher Morris

Address: 1 Harborside Drive, Suite 200S, East Boston, MA 02128

Phone: 617-946-4432

Email: cmorris@massport.com

Part 2: ***Project Description***

Provide a detailed narrative describing the actions taken by the nominated project and/or nominated individual(s) to advance clean diesel activities within the NEDC region. To be considered for an award, the emissions benefits must have occurred since July 2013. The narrative should be a **maximum of 2 pages** and include the following:

- Describe project location, timeline and costs
- Describe actions taken to reduce diesel emissions
- Describe business benefits and/or leverage associated with the project
- Describe how the project serves as a model for others to follow
- Describe how actions can be continued and sustained
- If applicable, list project partners and describe the partnership or collaborative effort
- If applicable, include quantified emission reductions (e.g., PM, HC, NOx, CO, fuel conserved)
- If applicable, include a qualitative description of the approach to outreach and collaboration

Part 3: ***Additional Information*** *(optional)*

You may include any relevant information, pictures or graphics associated with the nominated project. Note: If the nominee is involved in an active environmental enforcement action (federal or state), this must be disclosed.

Fill out this form, attach your narrative and submit to Gary Rennie at rennie.gary@epa.gov

Nomination Deadline: July 31, 2015

Massachusetts Port Authority – Conley Terminal
Drayage Truck Replacement
2015 NEDC Breathe Easy Leadership Award

The Massachusetts Port Authority (Massport) is a self-sustaining public authority of the Commonwealth of Massachusetts, created by act of the Legislature in 1956. Massport owns and operates Boston-Logan International Airport, L.G. Hanscom Field, Worcester Regional Airport several major maritime terminals within the Port of Boston, including the Conley Container Terminal and Black Falcon Cruise Terminal, and other additional maritime and real estate properties in South Boston, East Boston and Charlestown.

Massport's premier transportation facilities stimulate economic growth and vitality both locally and throughout New England. The Port of Boston is the oldest continuously active major port in the Western Hemisphere. It is the region's major seaport and a center of domestic and international shipping and commerce that handles more than 13 million metric tons of containerized and bulk cargo per year. Port activities support approximately 50,000 jobs annually contributing more than $4.6 billion to the local, regional, and national economies.

In 2011 Massport received a Diesel Emission Reduction Act (DERA) Grant for $500,000 to achieve significant reduction in diesel emissions by replacing the 20 oldest drayage trucks that routinely served Conley Terminal with trucks that meet or exceed the EPA 2007 heavy duty diesel emission standards. The typical age of trucks targeted for replacement was between 13 and 30 years old. Although most estimates of heavy duty diesel trucks assume a useful life of 20 years, container drayage trucks are often owned and operated by individuals who do not have the means to replace their trucks so they are forced to rebuild their vehicle or engine as often as necessary to keep it running. Response to the original request for participants was very strong and trucks were prioritized by weekly and monthly trips to Conley Terminal and by potential for annual and lifetime emission reductions. Based on this prioritized list, the top 20 trucks were selected for inclusion in the program. The programs annual and life time emission reductions are summarized below in Table 1.

Table 1. Actual Results from Conley DERA Drayage Truck Replacement Program*

	NOx	PM	HC	CO	CO2
Annual Reductions (tons)	33.8	1.68	1.35	9.53	0
Lifetime Reduction (tons)	283.9	10.94	17	120.1	0

*Emission Reductions use elements from both EPA Diesel Emission Quantifier and Smartway Drayage Calculator

After the initial grant program was exhausted of funding, Massport's Maritime Department successfully petitioned its board to fund the program for a further $1,000,000. This additional funding allowed for the replacement of an additional 40 drayage trucks serving Conley Terminal. The Massport program followed the design of the Massport DERA grant proposal, which included an estimated truck purchase price of $50,000 per truck, with the assumption that the majority of truck owners would elect to buy used trucks meeting the 2007 EPA heavy

duty diesel emission standards rather than new or newer trucks. Like the previous program grant funding was limited to 50% of the replacement cost of the new vehicles to a maximum of $25,000 per vehicle. The remainder of the purchase price was the responsibility of the truck owner. Old trucks were scrapped according to EPA program guidelines.

To date the program has replaced the initial 20 trucks funded by the EPA DERA Grant as well as 20 additional trucks funded directly by Massport. Thus far the programs annual and lifetime emission reduction are summarized in Table 2.

Table 2. Actual Results from Conley MPA Funded Drayage Truck Replacement Program*

	NOx	PM	HC	CO	CO2
Annual Reductions (tons)	28.7	1.40	1.20	8.51	0
Lifetime Reduction (tons)	312.68	15.21	13.45	95.26	0

*Emission Reductions use EPA Diesel Emission Quantifier

Table 3 includes an estimate of the total annual and life time emission reductions that will be realized by the program once the remaining grants have been disbursed.

Table 3. Estimates of Results from Conley MPA Funded Drayage Truck Replacement Program*

	NOx	PM	HC	CO	CO2
Annual Reductions (tons)	54.62	2.67	2.29	16.20	0
Lifetime Reduction (tons)	595.58	28.97	25.62	181.44	0

*Emission Reductions use EPA Diesel Emission Quantifier

Since 2011 the Conley Clean Truck Program has made significant reductions in diesel engine related air emissions in South Boston community. Reductions in oxides of Nitrogen (NO_x) and particulate matter (PM) are particularly significant in the areas surrounding Conley terminal since the area is classified by USEPA as non-attainment for ground level ozone (for which NO_x is a precursor) and a National Air Toxics Assessment (NATA) priority for reduction of PM. Through the implementation of the Clean Truck Program, Massport has helped to significantly improve air quality in the parks and neighborhoods surrounding Conley Terminal. Massport continues to strive to reduce its environmental impact in all of it operations. This program is just one example of the Authority utilizing its limited capital budget to effect reductions in air emissions in the South Boston Community.